IN THE TITLE

Please amend the title as follows:

SIGNAL PROCESSING DEVICE AND METHOD, SIGNAL PROCESSING PROGRAM, AND RECORDING MEDIUM WHERE THE PROGRAM IS RECORDED

IN THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning on page 8, line 26, with the following rewritten paragraph as follows:

-- The function for acquiring a discrete signal from a continuous waveform signal based on the fluency information theory is theoretically developed in detail and is defined as a sampling function in this description, as will be described later. The sampling function may be referred to as a fluency AD function. The function for acquiring a continuous waveform signal from a discrete signal is defined as an inverse sampling function in this description. The inverse sampling function may be referred to as a fluency DA function. The sampling function and the inverse sampling function defined as such maintain the orthogonal with each other and are expressed through the use of parameter m. --

Please replace the paragraph beginning on page 26, line 25, with the following rewritten paragraph:

-- Piecewise polynomials are defined by equation (3) and are continuously differentiatable only (m-2) times. Equation (4) defines fluency signal space ${}^{m}S(\tau)$ as a signal space, using the function system (a set of functions)

$$\{{}^{m}\phi(t-k\tau)\}_{k=-\infty}^{\infty}$$

composed of the piecewise polynomials of degree (m-1) as a base. As mentioned above, τ represents a sampling interval for acquiring a discrete

signal (sampling value) from continuous signals. Each sampling point along the time axis is represented as t_k (= $k\tau$).

~~${}^{m}\phi(t) \triangleq \int_{-\infty}^{\infty} \left(\frac{\sin \pi f \tau}{\pi f \tau}\right)^{m} e^{j2\pi f \tau} df$ ... (3)~~

~~${}^{m}S(\tau) \triangleq \left[{}^{m}\phi(t - k\tau)\right]_{k=-\infty}^{\infty}$ ... (4)~~

$${}^{m}\phi(t) \triangleq \int_{-\infty}^{\infty} \left(\frac{\sin \pi f \tau}{\pi f \tau}\right)^{m} e^{j2\pi f t} df \quad \text{... (3)}$$

$${}^{m}S(\tau) \triangleq \left[{}^{m}\phi(t - k\tau)\right]_{k=-\infty}^{\infty} \quad \text{... (4)}$$